

These represents moving parts of the bridge ( that is added to the existing road and therefore becomes the road after the addition). As the mass goes forward, it presses on each of the moving parts that are coupled to a crankshaft, so that it is possible to create a rotation with a linear movement.

Figure 1 : Demonstration that linear movement can be translated into rotation

## Moving parts of the Bridge

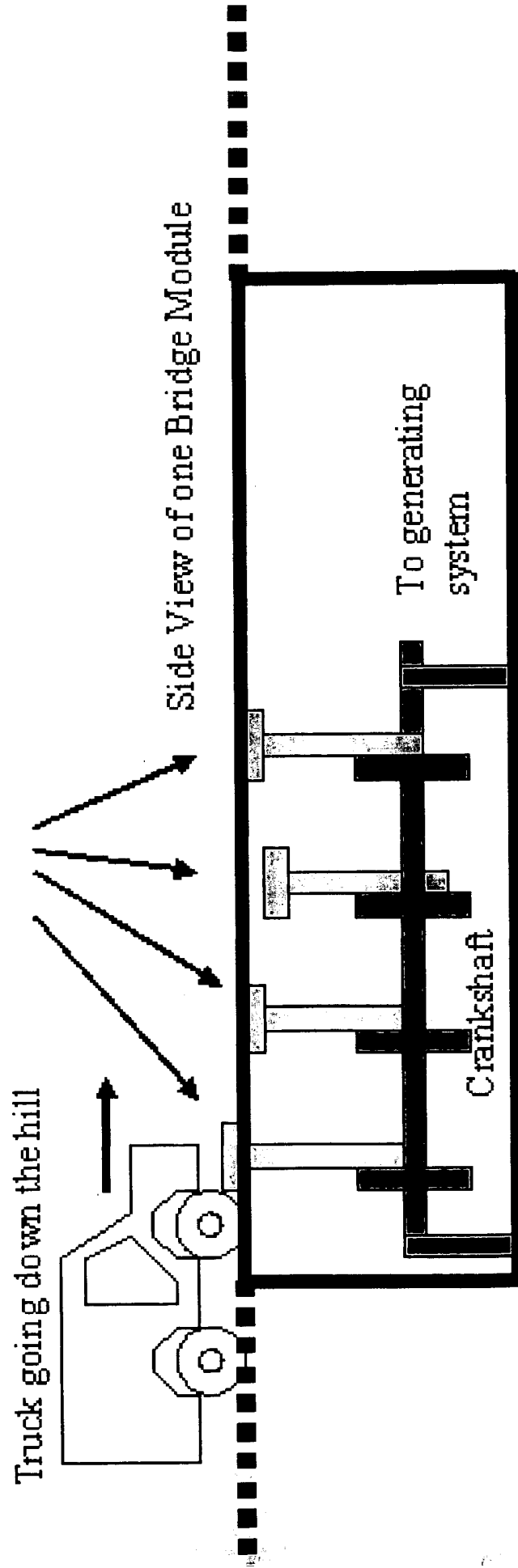
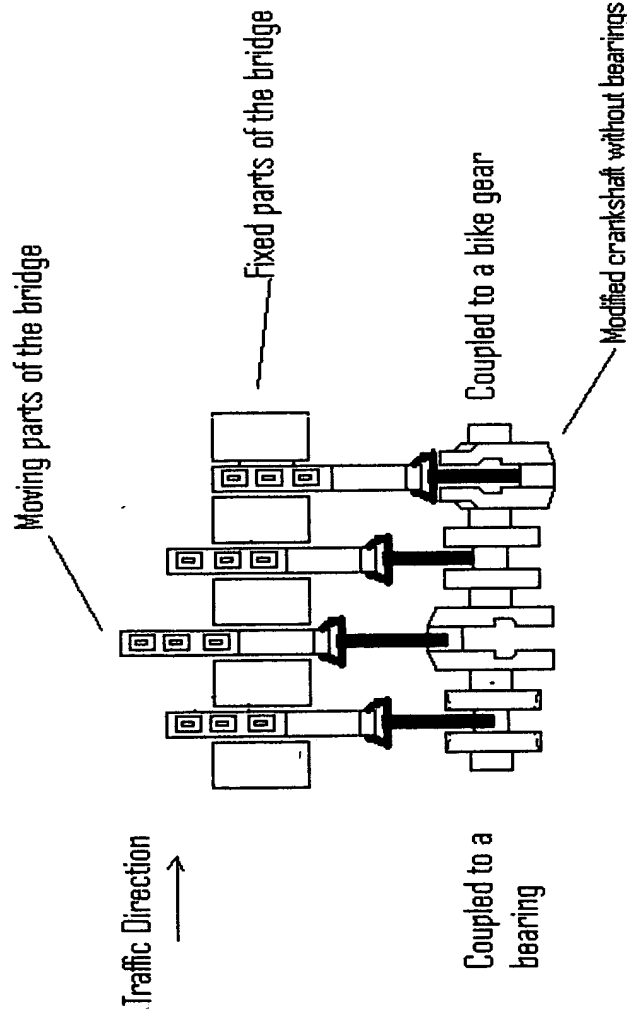


Figure 2: Side view of Figure 1, showing the functioning of the Bridge and the Gravitational Motor.



Scale:  
1 unit on this drawing =  
9.1429 in reality

#### Notes:

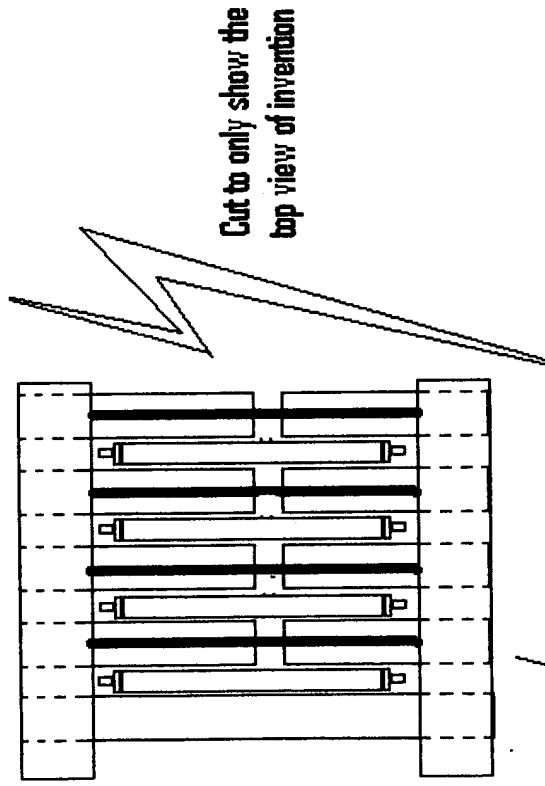
- 1- The fixed parts of the bridge are held by a frame that is not shown on this drawing to ease understanding of the mechanism of the bridge.
- 2- The crankshaft is held by bearings at both side and is coupled to a bike gear that we used to deliver power to the flywheel.
- 3- In order to deliver the power from the crankshaft to the flywheel we used a chain but we could have used any other well known mechanical device.
- 4- I built a prototype of this size just to prove that it is possible to generate a rotation with the linear movement of things. In other words, for true applications on roads or at airports or anywhere else, the size and particularities of the prototype have to be recalculated.
- 5- This prototype is for very slow speed applications (and ideally, we can activate it with our hands also) and has been designed only to prove that it is possible to create a rotation with linear movement.
- 6- This prototype has been designed with a 4 cylinder crankshaft but we could have used anything else. It all depends on the application but the principle stays the same

Figure 3

Application # 10/71662

For: USPTO, By: Alain Painchaud

Member 109834 of OIQ, Quebec



Scale:  
1 unit on this drawing =  
9.1429 in reality

Frame of the bridge with the moving parts in the middle

#### Notes:

- 1- The moving parts are guided in the middle by a guide and at extremities with rollers.
- 2- This is only a prototype and it is not intended for permanent generation of energy.
- 3- The road segments have not been designed for winter conditions but only to prove that it is possible to convert a linear movement into a rotation and ultimately into electrical energy.

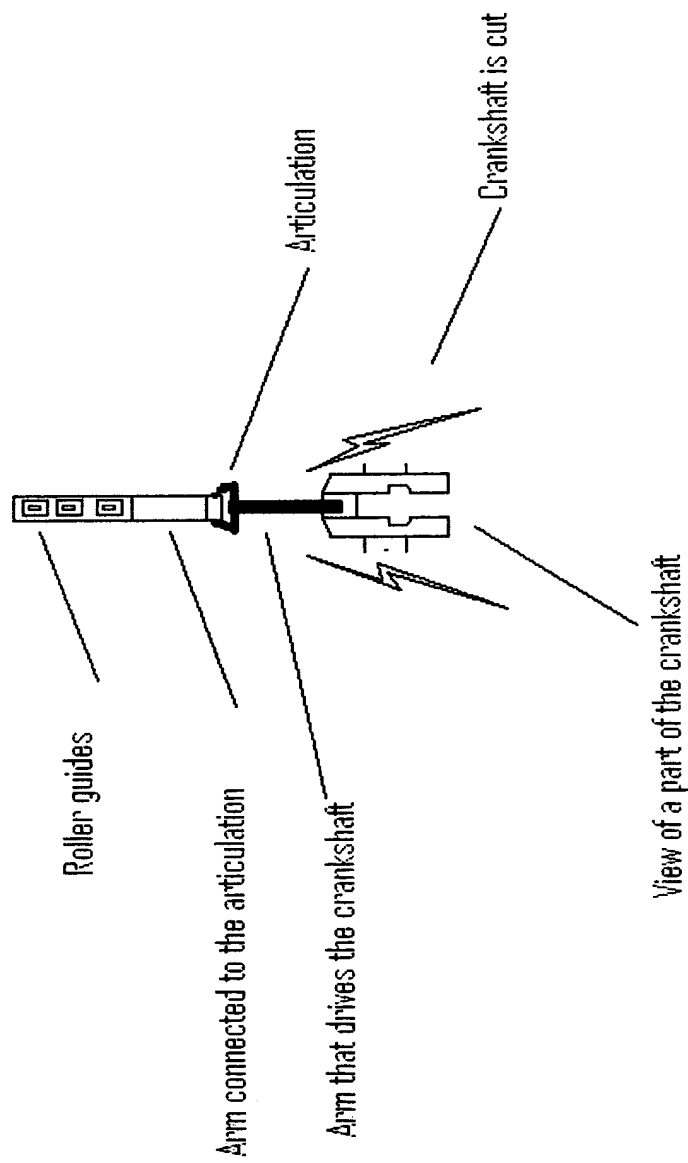
Figure 4

Top view of the invention

Application # 10/71662

For USPTO, By: Alain Painchaud

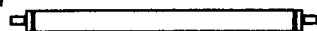
Member of OIQ in Quebec, Canada, #109834



Scale:  
1 unit of this drawing =  
9.1429 in reality

Figure 5  
Application # 10/711662  
For USPTO, by: Alain Painchaud  
Member 109834 of OIQ in Quebec

Roller guide



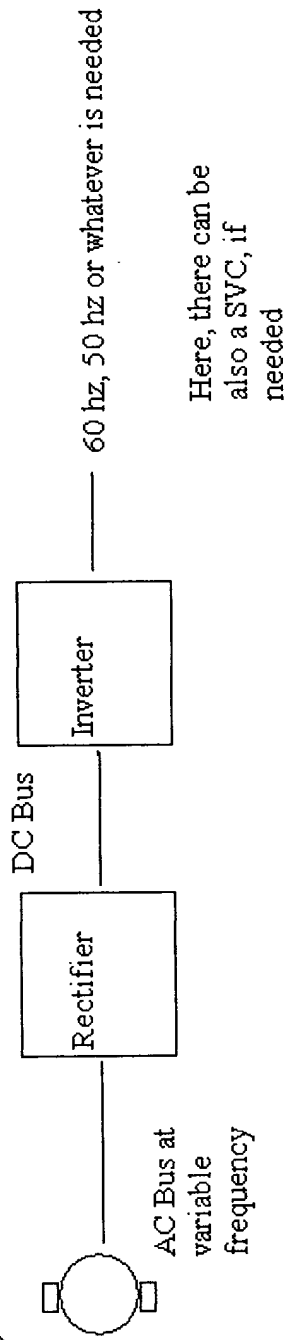
Moving part of the bridge

Scale:  
1 unit of this drawing =  
9.1429 in reality

Figure 6  
Application # 10/711662  
For USPTO, by: Alain Painchaud  
Member 109834 of OIQ in Quebec

Back to back link (rectifier + inverter) to cope for the frequency and power problem before sending to utility electrical system

Generator( Could be any power so I left it blank )



Here, there can be also a SVC, if needed

Inventor Name: Alain Painchaud; Application # 10/711,662  
Title of the Invention: Bridge converting movement into electricity  
Replacement Sheet

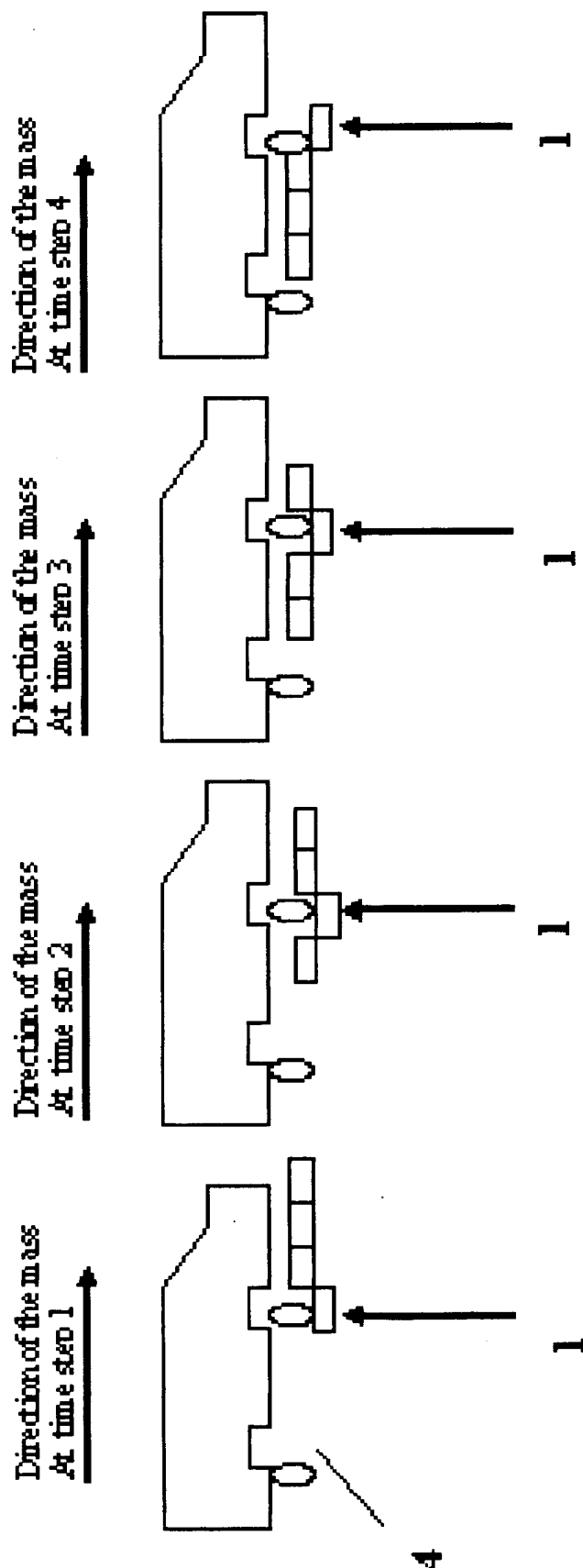


Fig. 1



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Invention Title: Bridge Converting Movement into Electricity  
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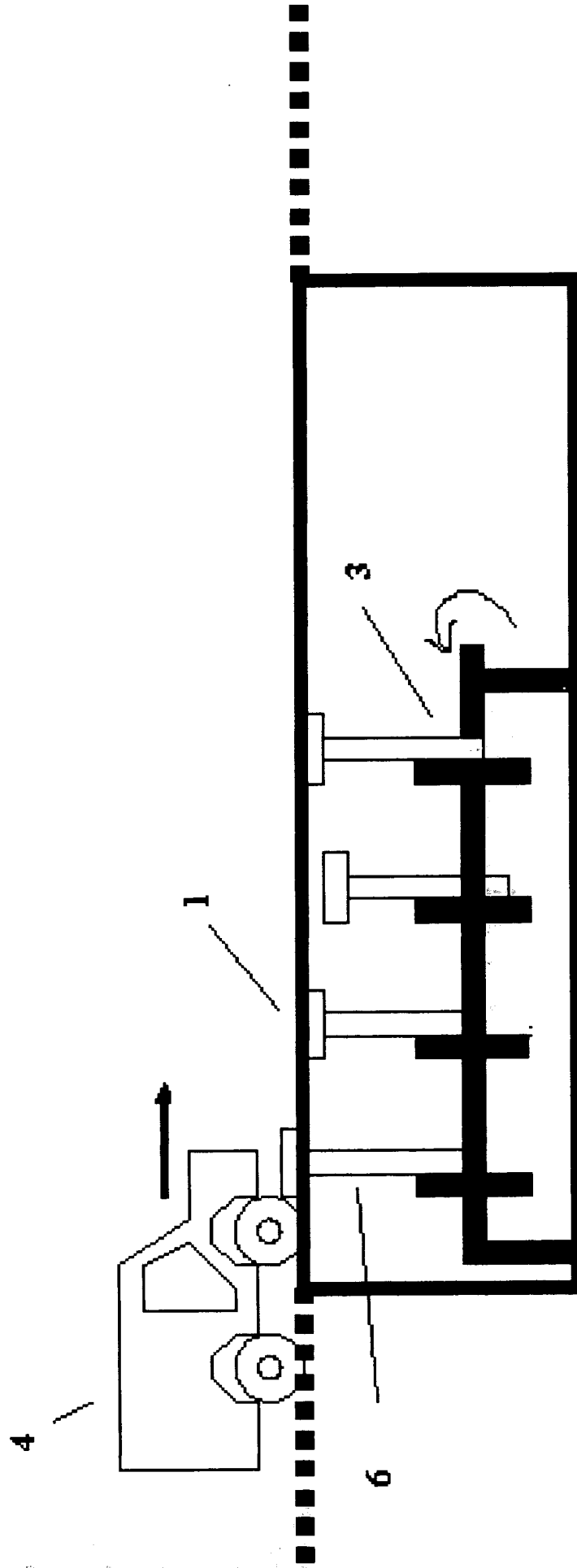


Fig 2

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Invention Title: Bridge Converting Movement Into Electricity  
Replacement Sheet

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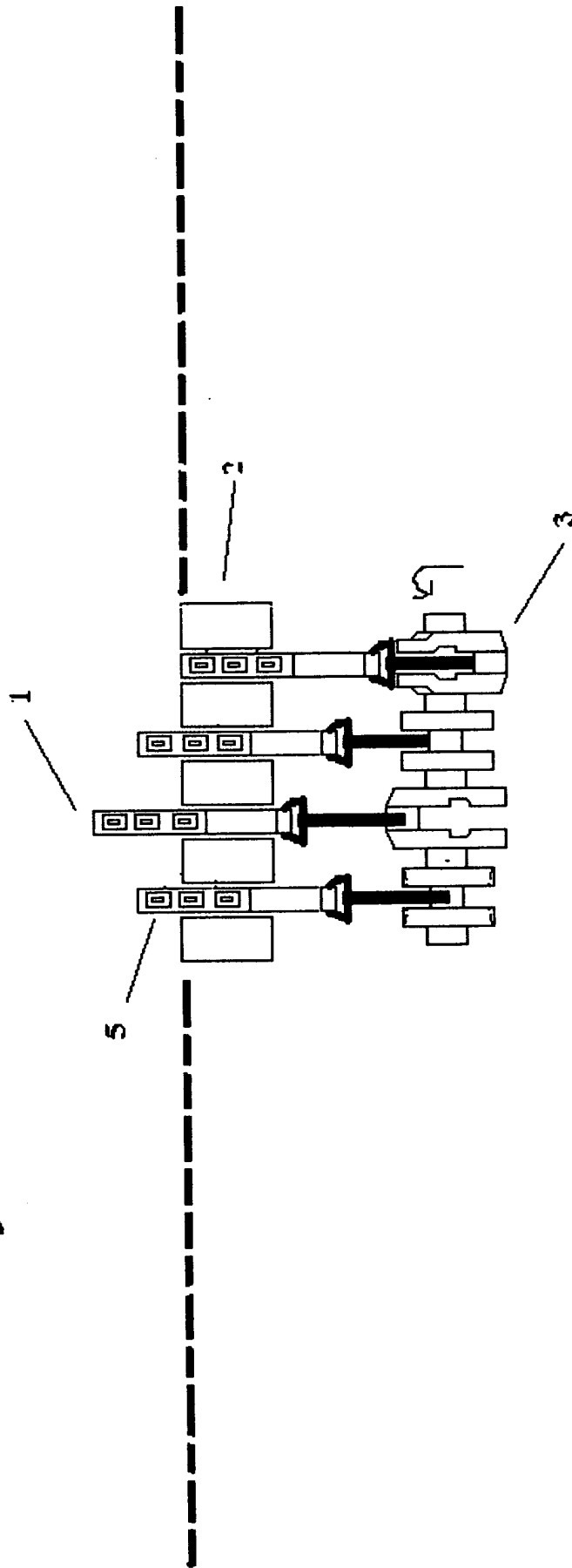


Fig. 3

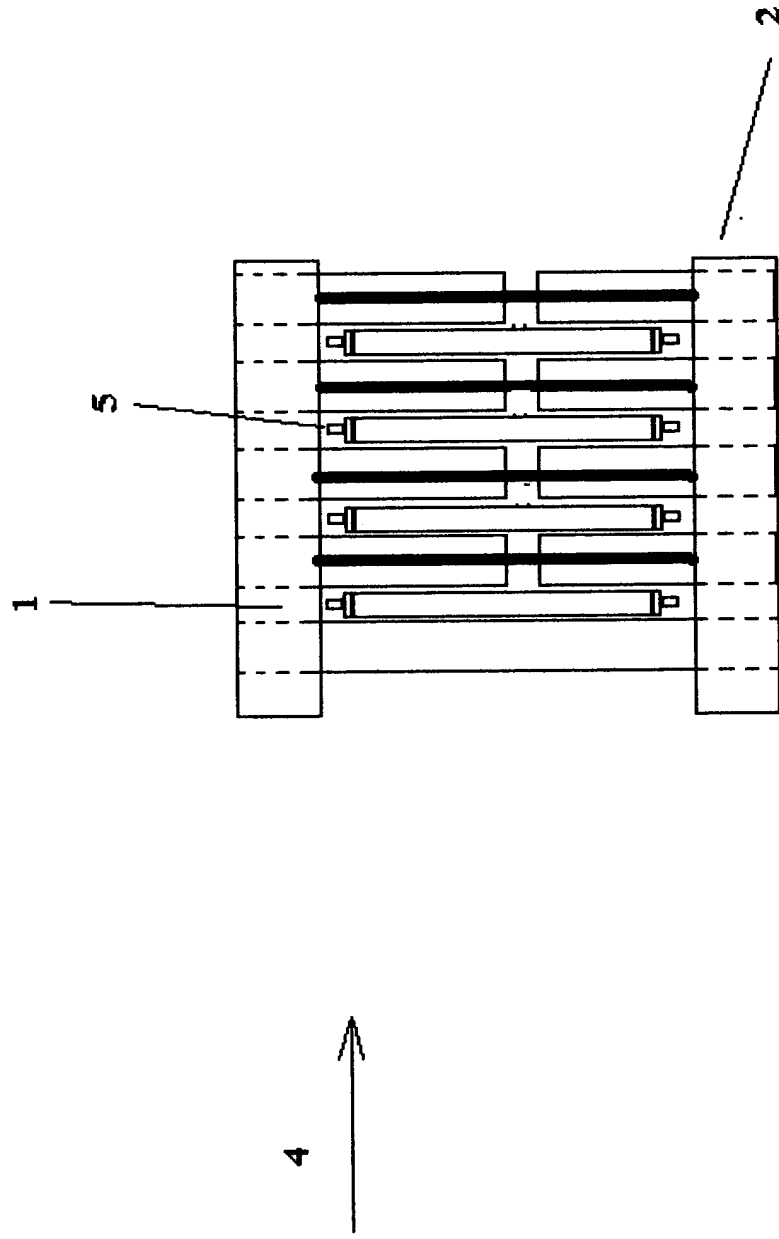


Fig. 4

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Invention Title: Bridge Converting Movement into Electricity

## Replacement Sheet

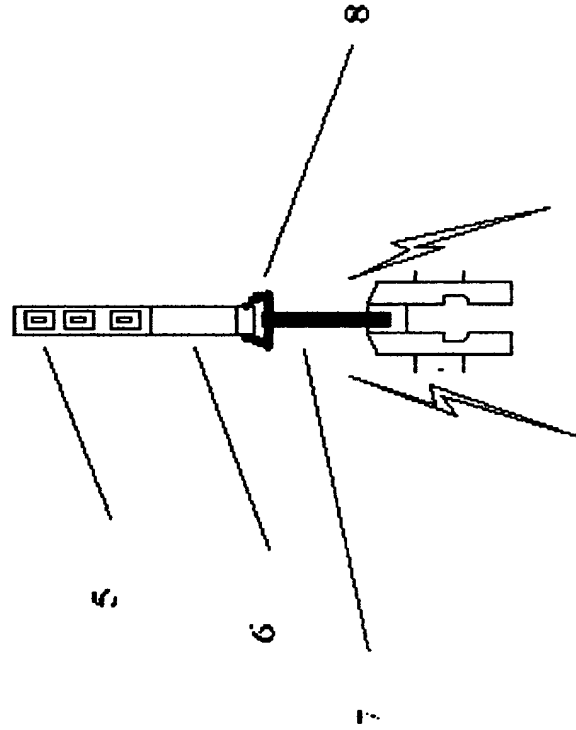


Fig. 5

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Invention Title: Bridge Converting Movement into Electricity

## Replacement Sheet

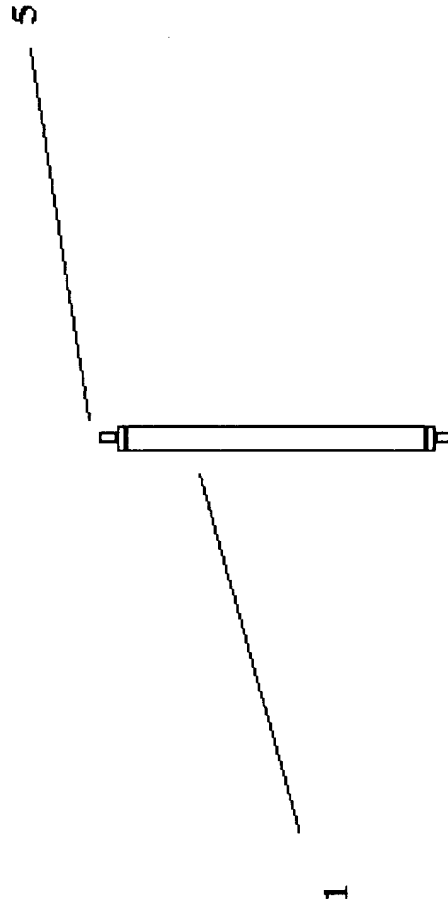
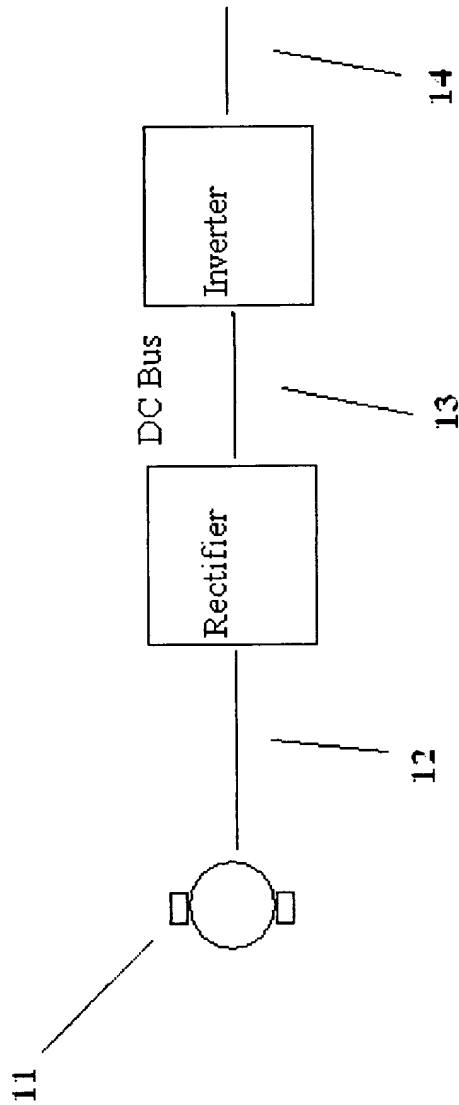


Fig. 6

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Invention Title: Bridge Converting Movement into Electricity

Replacement Sheet



**Fig. 7**  
Electrical Diagram 1

# DRAWINGS

Inventor Name: Alain Painchaud; Application # 10/711,662  
 Title of the Invention: Bridge converting movement into electricity  
 Replacement Sheet

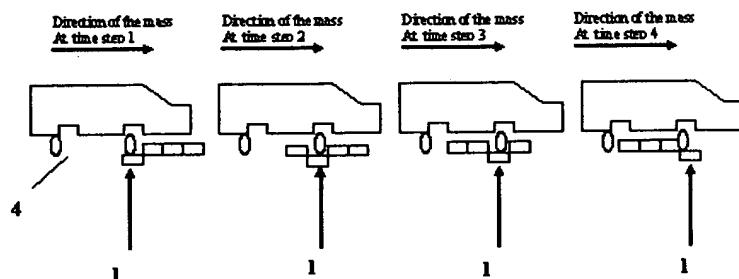


Fig. 1

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 Invention Title: Bridge Converting Movement into Electricity  
 Replacement Sheet

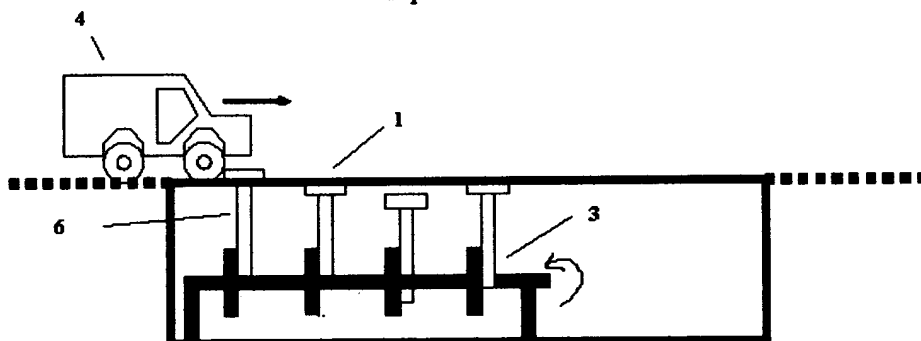
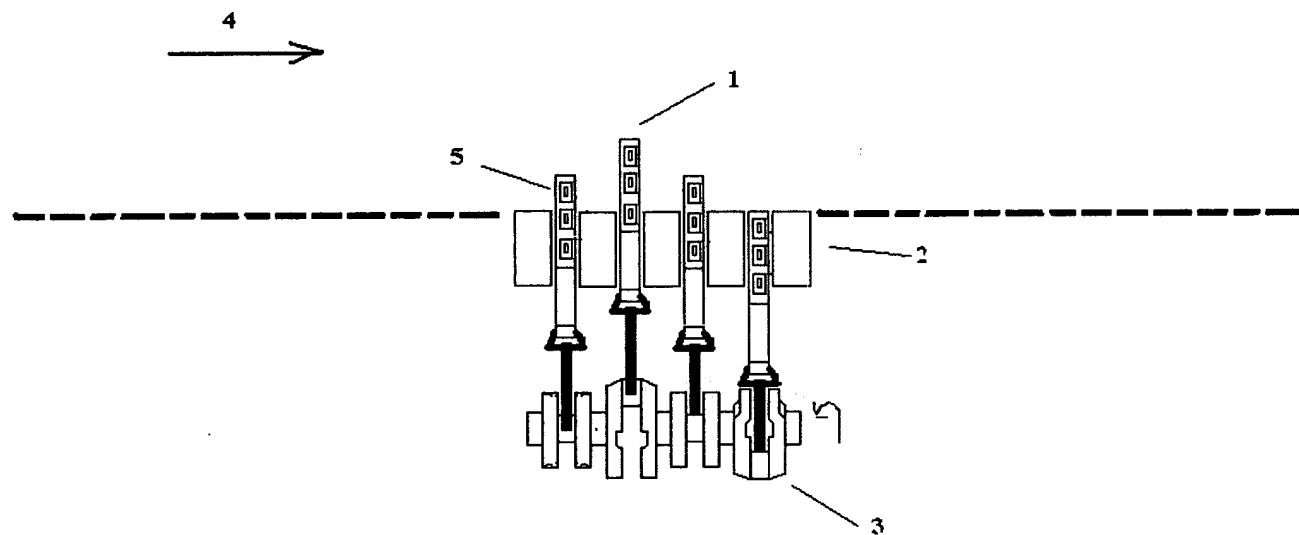
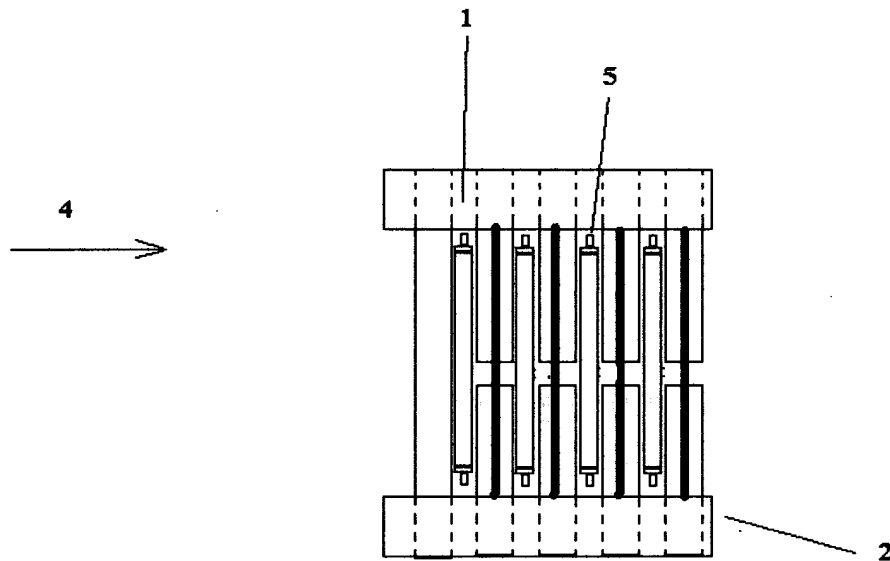


Fig. 2



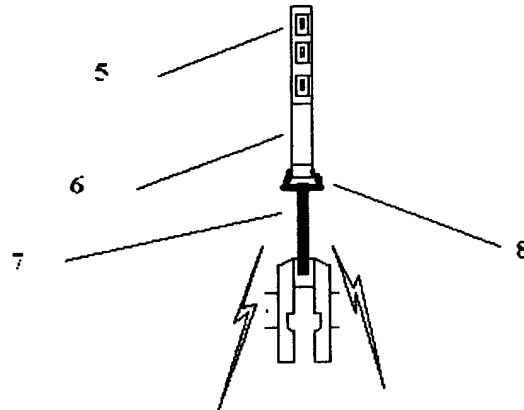
**Fig. 3**





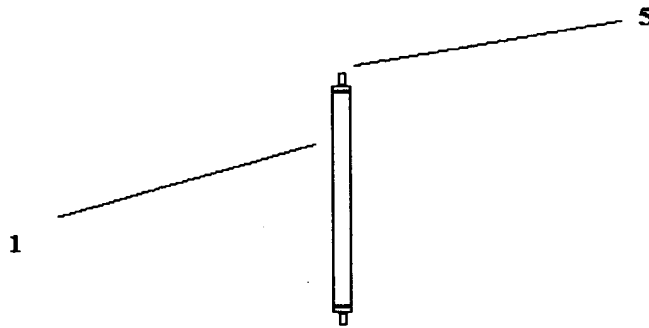
**Fig. 4**

**Replacement Sheet**

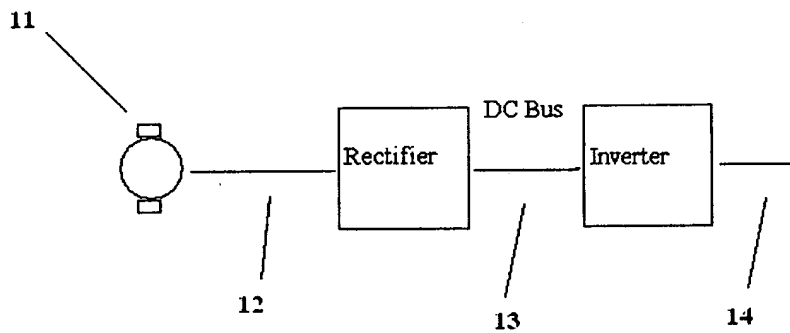


**Fig. 5**

**Replacement Sheet**



**Fig. 6**



**Fig. 7**  
**Electrical Diagram 1**

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